

CLAIMS

1. A method for classifying a first video type and a second video type in a video signal having a series of frames, comprising the steps of:

(A) reading a first set of parameters defining an active
5 portion of a first of said frames;

(B) reading a second set of parameters defining an active portion of a second of said frames;

(C) comparing said first set of said parameters with said second set of parameters to generate a comparison value;

10 (D) if said comparison value is above a predetermined threshold, indicating the first video type; and

(E) if said comparison value is not above said predetermined value, indicating the second video type.

2. The method according to claim 1, wherein (i) said first video type comprises a commercial and said second video type comprises a program.

3. The method according to claim 1, wherein said first set of parameters comprises a first four set (T, B, L, R), where

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(i) T represents a first number of lines from a top of a nominally active area, (ii) B represents a second number of lines from a bottom of the nominally active area, (iii) L represents a first number of columns from a left of the nominally active area, and (iv) R represents a second number of columns from a right of the nominally active area.

4. The method according to claim 3, wherein:

the number of lines T comprises video with no material non-black content;

the number of lines B comprises video with no material non-black content;

the number of lines L comprises video with no material non-black content; and

the number of lines R comprises video with no material non-black content.

5. The method according to claim 3, wherein said second set of parameters comprises a second four set (T, B, L, R), where (i) T represents a first number of lines from a top of a nominally active area, (ii) B represents a second number of lines from a

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5 bottom of the nominally active area, (iii) L represents a third number of lines from a left of the nominally active area, and (iv) R represents a fourth number of lines from a right of the nominally active area.

6. The method according to claim 5, wherein, in the second four set:

the number of lines T comprises video with no materially non-black content;

5 the number of lines B comprises video with no materially non-black content;

the number of lines L comprises video with no materially non-black content; and

10 the number of lines R comprises video with no materially non-black content.

7. The method according to claim 5, wherein step (D) comprises comparing (i) an absolute value of the difference of said T parameters, plus (ii) an absolute value of the difference of said B parameters, plus (iii) an absolute value of the difference of

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5 said L parameters, plus (iv) an absolute value of the difference of
said R parameters, to the threshold value.

8. The method according to claim 1, wherein (i) said
predetermined value comprises a first threshold to determine if the
first frame and the second frame are part of an unbroken segment
and (ii) said predetermined value comprises a second threshold to
5 determine if the first frame and the second frame have the same set
of parameters.

9. The method according to claim 1, wherein said video
signal comprises a digital video signal.

10. An apparatus comprising:

a first detector circuit configured to generate (i) a
first set of parameters defining an active portion of a first frame
of a video signal having a series of frames and (ii) a second set
5 of parameters defining an active portion of a second frame of said
video signal; and

a second detector circuit configured to generate a
transition indication signal in response to a comparison between

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(i) said first set of parameters and (ii) said second set of
10 parameters.

11. The method according to claim 10, wherein said
further detector circuit comprises a 4-set detector.

12. The apparatus according to claim 10, wherein said
detector circuit comprises a segment detector.

13. The apparatus according to claim 10, wherein said
first detector generates said first set of parameters and said
second set of parameters in response to (i) a threshold signal and
(ii) one or more samples.

14. The apparatus according to claim 10, further
comprising:

a controller (i) connected between said first detector
and said second detector and (ii) configured to control said first
5 detector and said second detector.

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15. The apparatus according to claim 10, wherein said program indication signal indicates a transition between a first program type and a second program type.

16. A method for distinguishing between a commercial and a program in a digital video signal having a series of frames, comprising the steps of:

(A) determining a first truly active region of a first
5 of said frames;

(B) determining a second truly active region of a second
of said frames; and

(C) if said first truly active region is substantially
similar to said second truly active region, indicating a first
10 segment signature.

17. The method according to claim 16, further comprising
the step of:

if said first truly active region is not substantially
similar to said second truly active region, indicating a second
5 segment signature.

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18. The method according to claim 17, wherein said first segment signature represents a commercial and said second segment signature represents a program.

19. The method according to claim 18, wherein said method further comprises implementing a commercial advance by:

skipping said first segment signatures; and
returning to said second segment signatures.

20. A method for segmenting a video signal into program and commercial segments, comprising the steps of:

(A) reading a first set of parameters defining a signature for a first program segment;

5 (B) detecting the end of said first program segment;

(C) reading a second set of parameters defining a second segment;

(D) comparing said second set of parameters to said first set of parameters; and

10 (E) if said first set of parameters and said second set of parameters are substantially similar, classifying said second segment as a program segment.

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21. The method of claim 20, wherein said parameters indicate start of active video.